UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,986	09/25/2008 Juliane Kluge		UMICORE 0175-US	3398
23719 KALOW & SPI	7590 04/17/200 RINGUT LLP	EXAMINER		
488 MADISON 19TH FLOOR		BERNS, DANIEL J		
NEW YORK, N	NY 10022		ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			04/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application	pplication No. Applicant(s)						
Office Action Summary			10/593,986		KLUGE ET AL.				
			Examiner		Art Unit				
			DANIEL BE		1793				
Period fo	The MAILING DATE of this commur or Reply	nication appe	ears on the o	cover sheet with the d	correspondence ad	ddress			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).									
Status									
1) 又	Responsive to communication(s) file	ed on 25 Se	ntember 20	08					
· · · · · · · · · · · · · · · · · · ·	Responsive to communication(s) filed on <u>25 September 2008</u> . This action is FINAL . 2b) This action is non-final.								
3)		<i>'</i> —			secution as to the	e merits is			
٠,١	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.								
Dispositi	on of Claims								
4)🖂	Claim(s) 1-14 is/are pending in the	application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.								
	☐ Claim(s) is/are allowed.								
· · _ ·	Claim(s)is/are allowed. Claim(s) <u>1-14</u> is/are rejected.								
·	Claim(s) <u>6</u> is/are objected to.								
	Claim(s) are subject to restrict	ction and/or	election red	juirement.					
	on Papers			'					
	•								
•	The specification is objected to by the				4 4 -				
10)[2]	10)⊠ The drawing(s) filed on <u>25 September 2006</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.								
	Applicant may not request that any obje			-					
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11)	The oath or declaration is objected to	o by the Exa	aminer. Not	e the attached Office	Action or form P	TO-152.			
Priority u	ınder 35 U.S.C. § 119								
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 									
2) Notic 3) Inforr	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (I nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	PTO-948)		l) Interview Summary Paper No(s)/Mail Da i) Notice of Informal F i) Other:	ate				

Art Unit: 1793

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement ("IDS")

2. The information disclosure statements filed on 9/25/06 and 3/26/07 do not fully comply with the requirements of 37 CFR 1.98(b) because: the "Written Opinion" entry on the 9/25/06 IDS lacks a publication date, and also lacks a statement of the title/number of the document for which the Written Opinion pertains. If the Opinion refers to PCT/EP2005/003080 (it appears to do so), an indication thereof must be added. Also, the "International Search Report (PCT/EP2005/003080)" thereon lacks a publication date. On the 3/26/07 IDS, the "International Preliminary Report on Patentability (PCT/EP2005/003080)" lacks a publication date as well.

Since the submissions appear to be *bona fide*, applicant is given **ONE** (1) **MONTH** from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 CFR 1.136(a) OR (b). Failure to timely comply with this notice will result in the above mentioned information disclosure statement being placed in the application file with the noncomplying information **not** being considered. See 37 CFR 1.97(i).

Specification

3. The disclosure is objected to because of the following informalities: the specification does not end with, and the claims are not preceded by, a statement such as "what is claimed is[,]" "we claim[,]" or the like. Appropriate correction is required.

Art Unit: 1793

Claim Objections

4. Claim 6 is objected to because of the following informalities: it appears that, for clarity, the third iteration of "material" should be changed to "component[,]" as said iteration seemingly refers to the nitrogen oxide storage *component* of claim 1, and not the overall nitrogen oxide storage *material* thereof. Should a different interpretation thereof be desired, applicant must explicitly so state in replying to this Office Action. Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). *See, e.g., In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

Art Unit: 1793

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective 1/1/94, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Page 4

6. Claims 1-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of US 6,858,193 (2005) to Ruwisch et al. ("Ruwisch '193"). Ruwisch '193 and the current application share a common assignee (Umicore) and a common inventor, Mrs. Juliane Kluge (Juliane Theis, Mrs. Kluge's maiden name, appears on the Ruwisch '193 patent). Although the conflicting claims are not identical, they are not patentably distinct from each other because they are coextensive in scope, and the removal of any extra limitations claimed by Ruwisch '193 but not by the instant application would have been obvious to one of ordinary skill in the art at the time of the invention. *See In re Kuhle*, 188 USPQ 7, 9 (CCPA 1975) (holding that the omission of a limitation with a corresponding loss of function is an obvious variation); *Ex parte Wu*, 10 USPQ 2031 (BPAI 1989); MPEP 2144.04 II. A.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1793

8. Claims 1-11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruwisch et al., Pre-grant Pub. No. US 2003/0125202 (published 7/3/03) ("Ruwisch '202"). Regarding claim 1, Ruwisch '202 discloses a nitrogen oxide ("NO_x") storage material comprising an Mg/Al mixed oxide support material doped with rare earth oxide, wherein the mixed oxide contains MgO in values of 1-30 wt. %. *See id.* at, *e.g.*, par. 16, 42 and 46; Tables 2-3; Examples 1-7.

Page 5

Regarding claims 2-3, Ruwisch '202 discloses oxides of Ce, Nd, Sm, La, Pr, and/or mixtures thereof as suitable rare earth oxides. *See id.* at par. 42 and 48; Table 3; Examples 1-7.

Regarding claim 4, Ruwisch '202 discloses oxides, carbonates or hydroxides of Mg, Ca, Sr, Ba, the alkali metals, and/or mixtures thereof as suitable NO_x storage materials. *See id.* at par. 36-37 and 48.

Regarding claim 5, Ruwisch '202 discloses the inclusion of \sim 0.5 to \sim 10 wt. % La₂O₃ and/or Pr₂O₃ within its NO_x storage material's support composition. *See id.* at par. 49.

Regarding claim 6, Ruwisch '202 discloses a NO_x storage catalyst comprising a catalytically-active Pt coating upon its rare earth oxide-doped, NO_x storage material-comprising Mg/Al mixed oxide support material. *See id.* at par. 43-44; Table 3; Examples 1-7.

Regarding claim 7, Ruwisch '202 discloses Pt deposited upon the NO_x storage material, where said material additionally comprises an oxygen-storing material based on Ce oxide, such as Ce oxide or a Ce/Zr mixed oxide. *See id.* at par. 44 and 46-47.

Regarding claim 8, Ruwisch '202 discloses the optional presence of Pd along with the Pt coating previously discussed. *See id.* at par. 43-44; Table 3; Examples 2 and 4-7.

¹ Applicant should note that Ruwisch '202 is within the same document/application family as EP 1317953, appearing in applicant's 9/25/06 Information Disclosure Statement. The citations to Ruwisch '202 above should also be inferred to cite to the appropriate, corresponding passages in EP 1317953, although explicit citations thereto have been omitted for simplicity and to avoid confusion.

Art Unit: 1793

Regarding claims 9-10, Ruwisch '202 discloses the optional presence of Rh-coated alumina within its NO_x storage catalyst. *See id.* at par. 45; Table 3; Examples 3-7.

Page 6

Regarding claim 11, Ruwisch '202 discloses NO_x storage catalyst comprising Pt coated upon an Mg/Al mixed oxide support material doped with rare earth oxide, wherein the mixed oxide contains MgO in values of 1-30 wt. % and the rare earth oxide is present in values of ~0.5 to ~10 wt. % of the overall support material's weight. *See id.* at par. 16, 42-44, 46 and 49; Tables 2-3; Examples 1-7.

Regarding claim 14, Ruwisch '202 discloses the coating of its NO_x storage catalyst upon inert ceramic or metal honeycomb carriers, such as cordierite honeycombs. *See id.* at par. 61 and 63; Examples 1-7. Ruwisch '202 further discloses that coating NO_x storage catalysts upon inert, metal or ceramic honeycomb carriers is a common practice in the art. *See id.* at par. 8.

9. Claims 1-4, 6-8, and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) (statutory text provided below) as obvious over Burk et al., US 4,883,783 (1989) ("Burk"). Regarding claim 1, Burk discloses a catalyst comprising an oxide of Be, Ca, Sr, Ba, Group IA metals or combinations thereof to react with SO_x (said oxide can also serve as a NO_x storage component, as shown above within Ruwisch '202), the oxide being combined with a bi-metallic Mg/Al spinel oxide support material doped with a rare earth oxide. *See id.* at col. 2, ln. 39 to col. 3, ln. 3, col. 3, ln. 46-61, col. 5, ln. 28-38, and col. 7, ln. 55 to col. 8, ln. 10; clms. 1-2. Of the Mg/Al bi-metallic oxide, Mg:Al atomic ratios of at least 0.17:1, preferably at least 0.25:1, are employed. *See id.* at col. 5, ln. 39-48. Additionally, other refractory oxides apart from the spinel may be added thereto, such as ~0.1 to ~25 % by weight MgO. *See id.* at col. 6, ln. 64 to col. 7, ln. 1.

Page 7

Given the close similarity between Burk's composition and that claimed, Burk's composition may thus reasonably be expected to inherently function equally well as a SO_x-conversion catalyst (as disclosed by Burk) and as a NO_x storage material as claimed. As such, claim 1 is *prima facie* anticipated by Burk. See In re Best, 562 F.2d 1252, 1255, 195 USPQ 430,433 (CCPA 1977); MPEP 2112.01. Alternatively, even in the absence of an explicit statement that Burk's composition can function as a NO_x storage material, Burk nevertheless renders claim 1's composition prima facie obvious due to the structural/compositional similarities between Burk's and the claimed compositions. This conclusion of obviousness is buttressed by the Federal Circuit's holding that "[w]hen a chemical composition is claimed, a prima facie case of obviousness under Section 103 may be established by [the prior art's teaching of] a similar composition, the presumption being that similar compositions have similar properties." See, e.g., In re Soni, 54 F.3d 746, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995) (internal citations omitted); Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985); In re Best; MPEP 2112.01.

Regarding claims 2-3, Burk discloses oxides of Ce as suitable rare earth oxides for its catalyst. *See id.* at, *e.g.*, col. 2, ln. 68 to col. 3, ln. 3, and col. 7, ln. 55-56.

Regarding claim 4, Burk discloses oxides, carbonates or hydroxides of Be, Ca, Sr, Ba, the alkali metals, and/or mixtures thereof as suitable additives, which can function as NO_x storage materials as claimed. *See id.* at col. 7, ln. 9-46.

Regarding claim 6, Burk discloses a catalyst that can be used for NO_x storage, comprising catalytically-active Pt coating upon its rare earth oxide-doped, Mg/Al mixed oxide support material containing NO_x storage-capable material (i.e., oxides of Ca, Ba, Sr, Be, Group IA

Art Unit: 1793

metals or combinations thereof). *See id.* at col. 2, ln. 39 to col. 3, ln. 3, col. 3, ln. 46-61, col. 5, ln. 28-38, col. 7, ln. 55 to col. 8, ln. 10, and col. 8, ln. 34-53 (Pt coating); clms. 1-2 and 7-8.

Regarding claim 7, Burk discloses the incorporation of Pt upon its above-mentioned NO_x storage-capable material, *see id.* at col. 8, ln. 34-68 and col. 9, ln. 19-33, and the incorporation of an oxygen storage-capable material such as ceria within its overall catalyst formulation. *See id.* at col. 7, ln 55-60; Examples VI-VIII.

Regarding claim 8, Burk discloses the inclusion of Pd and Pt in its catalyst formulation. *See id.* at col. 3, ln. 13-21, and col. 9, ln. 39-43.

Regarding claim 11, Burk's NO_x storage-capable catalyst comprises Pt coated upon a rare earth oxide-doped Mg/Al mixed oxide support material containing NO_x storage-capable material (i.e., oxides of Ca, Ba, Sr, Be, Group IA metals or combinations thereof). *See id.* at col. 2, ln. 39 to col. 3, ln. 3, col. 3, ln. 46-61, col. 5, ln. 28-38, col. 7, ln. 55 to col. 8, ln. 10, and col. 8, ln. 34-68 and col. 9, ln. 19-33 (Pt coating); clms. 1-2 and 7-8. The spinel comprises Mg:Al atomic ratios of at least 0.17:1, preferably at least 0.25:1- in other words, at least 17 or at least 25 wt. % MgO is employed therein. *See id.* at col. 5, ln. 39-48. Additionally, other refractory oxides apart from the spinel may be added thereto, such as ~0.1 to ~25 % by weight MgO. *See id.* at col. 6, ln. 64 to col. 7, ln. 1. Burk's catalyst comprises ~2 to ~15 wt. % rare earth oxide dopant, based upon the support material's weight as a whole. *See id.* at col. 8, ln. 1-22.

Claim Rejections - 35 USC § 103

- 10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1793

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 11. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 13. In considering the obviousness rejections below, the applicant should note that the person having ordinary skill in the art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in the application reasonably reflect this level of skill.
- 14. Claims 1-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Ruwisch '202 in view of Strehlau et al., US 6,350,421 (2002) ("Strehlau"). Ruwisch '202's teachings regarding claims 1-11 and 14 are as above. Regarding claims 12-13, whereas Ruwisch '202 does not explicitly teach the presence of its NO_x storage component(s) in respective values of 3-25 and 5-

Art Unit: 1793

10 wt. %, these values are taught by Strehlau. Strehlau teaches a NO_x storage catalyst comprising a K, Cs, Ba, Mg, Ca, or Sr oxide, carbonate, or hydroxide NO_x storage material upon a rare earth metal-doped or bi-metallic (spinel-type) support, similar to Ruwisch '202's NO_x storage catalyst. *See* Strehlau at col. 4, ln. 55 to col. 5, ln. 26. Strehlau teaches the desirability of employing a NO_x storage material in amounts of 10-45 wt. % in relation to the NO_x storage catalyst's overall weight. *See id.* at col. 5, ln. 60-63. Given Strehlau's statement of the effectiveness of employing 10-45 wt. % NO_x storage material, and the fact that said range touches and/or overlaps those claimed, the latter are rendered *prima facie* obvious thereby. *See, e.g., In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) (holding that a *prima facie* case of obviousness exists where claimed ranges "overlap or lie inside ranges disclosed by the prior art"); MPEP § 2144.05.

Page 10

15. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burk. Burk's teachings regarding claims 1-4, 6-8, and 11 are as above. Regarding claim 5, Burk teaches the incorporation of ~0.06-30.71 wt. % rare earth oxides² within its support material, preferably ~2.46-3.69 to ~14.74-18.43 wt. % thereof.³ *See id.* at col. 7, ln. 42 to col. 8, ln. 22. While said ranges partially lie somewhat outside that claimed, a sufficient overlap exists to render the claimed range *prima facie* obvious in view of Burk's. *See, e.g., In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) (holding that a *prima facie* case of obviousness exists where claimed ranges "overlap or lie inside ranges disclosed by the prior art"); MPEP § 2144.05.

Regarding claims 9 and 10, while Burk does not explicitly teach the inclusion of Rh/Al₂O₃ in its catalyst formulation, Burk's teaching of the inclusion of one or more additional

Art Unit: 1793

metal components, such as platinum group metals (of which Rh is a member), and supporting such additional metal(s) upon a porous, inorganic oxide support such as alumina, renders the claimed limitations *prima facie* obvious. *See id.* at col. 9, ln. 9-24; *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 335, 65 USPQ 297, 301 (1945) ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle."); MPEP 2144.07.

Regarding claims 12 and 13, Burk incorporates the oxide(s) of Be, Ca, Ba, Sr, Group IA metals or combinations thereof (which can function as a NO_x storage component as discussed above) in amounts of ranging from a) ~0.02 to ~3 wt. % (if Cs_2O , the heaviest Group IA oxide, is used) or ~0.04 to ~6 wt. % (if Li_2O , the lightest Group IA oxide, is used) for employing alkali metal oxide(s), or b) ~0.03 to ~7 wt. % (if BeO, the lightest of the suitable Group IIA oxides disclosed, is used) or ~0.01 to ~3 wt. % (if BaO, the heaviest of the suitable Group IIA oxides disclosed, is used) for employing an oxide of Be, Ca, Sr, and/or Ba, in relation to the weight of the entire catalyst formulation. A See id. at col. 7, ln. 24-35. Again, while said ranges partially lie somewhat outside that claimed, a sufficient overlap exists to render the claimed range prima facie obvious in view of Burk's. In re Wertheim; MPEP § 2144.05.

² Using the explicitly-disclosed example of cerium (MW=140.116g/mol), 0.05-25 wt. % as the metal would correspond to 0.06-30.71 wt. % as CeO₂ (MW=172.116g/mol).

³ The preferred values above are likewise calculated from the disclosed values of 2-3 to 12-15 wt. % (as Ce metal).

⁴ The above values were calculated by the Examiner as metal *oxides*. Burk's disclosed values are for the corresponding elemental metals, *expressed relative to the weight of the "discrete entities" portion of the catalyst, which is 1-20 wt. % of the catalyst as a whole*: ~0.1 to ~15 wt. %, preferably ~0.25 to ~10 wt. % (for alkali metals); ~0.1 to ~25 wt. %, preferably ~0.5 to ~20 wt. % (for Be, Ca, Sr, and/or Ba). *See* Burk at col. 2, ln. 53-58, col. 3, ln. 22-25, and col. 7, ln. 24-35. Thus, Burk's disclosed values are multiplied by 0.01 to 0.20 to determine the wt. % of these oxides relative to the total weight of the catalyst. For simplicity's sake, Examiner's calculated oxide values in the paragraph discussing claims 12 and 13 reflect a "discrete entity" wt. % of 10 (in the middle of the 0.1-20 wt. % range disclosed by Burk), in the middle of the disclosed range.

16. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burk in view of Strehlau. Regarding claim 14, whereas Burk does not explicitly teach the application of its catalyst formulation upon an inert honeycomb of ceramic or metal, this limitation is taught by Strehlau. Strehlau teaches that NO_x storage catalysts are "generally applied" as coatings upon inert honeycomb carrier structures comprised of ceramic or metal. *See* Strehlau at col. 1, ln. 47-51. Given Strehlau's teaching that coating NO_x storage catalysts upon such honeycombs is standard practice in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to coat such a honeycomb with Burk's catalyst formulation (which, as described above, can function as a NO_x storage catalyst) as taught by Strehlau. Indeed, Burk may have omitted stating the applicability of its catalyst upon such honeycombs for the very reason that such coatings are well-known in the art. *See In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991) (stating that "[a] patent need not teach, and preferably omits, what is well known in the art."); MPEP 2164.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL BERNS whose telephone number is (571)270-5839. The examiner can normally be reached on Monday thru Thursday, 9AM-6PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached at (571)272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1793

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. B./ April 15, 2009 Examiner, Art Unit 1793

/Timothy C Vanoy/ Primary Examiner, Art Unit 1793